

50130012 / 4801484758

OK 4/13/20

~~U/R~~

Work Order ID 158509
Friday, March 24, 2017 9:33:18 AM

158509



Item ID:	D169-841-015	Accept	*N900040100*	Setup	Start	*NS1*
Revision ID:	URF 16-692				Stop	*NS2*
Item Name:	AW169 Lower Cutter					
Start Date:	3/29/2017	Start Qty: 1.00	*1*	Cust Item ID:		
Required Date:	3/31/2017	Req'd Qty: 1.00	*1*	Customer:		
Reference:	SCHEDULED/C					
Process Plan:						
Approvals:						
	Date: MAR 24 2017	Tooling:		Date:		
		SPC (Y/N):		Date:		
					Run	*NR1*
					Stop	*NR2*

F.A.T.R. COMPLETION
REQUIRED

Sequence ID/Work Center ID	Operation	Description	Set Up/Run Hours	Tool ID	Tool #	Plan	Accept	Reject	Qty	Reject	Number	Insp. Stamp
100	DOCUMENT CONTROL		0.00									
110	Pick Kit		0.00									
120	QC-100% Inspect kits for completeness		0.00									
130	QC		0.00									
140	Quality Control		0.00									

MAR 29 2017
DAS 6 9-89

100

Doc.Control -USB or Paperwork

DC

Photocopy bluefile and create labels per PPP D169-841-015 CHG002

MAR 28 9-89
DAS 28

MAR 28 2017

110

Packaging

Pick Kit

Memo

0.00

0.00

* (concession 4000000 61786 must be attached)

120

QC

Memo

Concession 4000000 61786

0.00

0.00

Fair must be Attached

QC APPROVAL

MAR 27 17:33:30 PD

POSITIVE RECALL

EFFECTIVE 11/02/14 AUTH

RELEASED DATE 2017-03-30

* Parts must be Reviewed By P.Smith

MAR 27 9-89
DAS 27

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____	

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mf
17-3-20

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Friday, March 24, 2017 9:33:22 AM

158509

D169-841-015

Start Date: 3/29/2017**Required Date:** 3/31/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 13-07-17 JLM VERIFIED BY:DD IPP
REV:B 15.07.03 AS PER CHG002 ecn15-595 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4842-041		Manufactured	No				Each	0.0000		1			DAS 6 9-89
D4842-041	DAS 28 9-89								**	157863		MAR 24 2017	DAS 27 9-89
Lower Cutter Assembly													
MS21042L08		Purchased	No				Each	578.0000		5			DAS 6 9-89
MS21042L08									**			MAR 24 2017	DAS 27 9-89
Nut													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				410					
					m135274			18					
					m135978			392					
				ST303				168					
					m136975			118		5			
					m137061			50					
MS27039-08-24		Purchased	No				Each	215.0000		5			DAS 6 9-89
MS27039-08-24									**			MAR 24 2017	DAS 27 9-89
Screw (MS27039-0824)													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				215					
					124326			215		5			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
2AG 8 38-8				2AG 8 38-8				Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Picklist Print

Friday, March 24, 2017 9:33:22 AM

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Work Order ID: 158509

158509

Parent Item: D169-841-015

D169-841-015

Parent Item Name: AW169 Lower Cutter

Start Date: 3/29/2017

Required Date: 3/31/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149FN832P

Purchased

No

Each

1,644.000

10

NAS1149FN832P

Washer

DAS
6
9-89

DAS
27
9-89

MAR 24 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

347

M135058

232

M136182

115

ST263

1297

M136866

1297

10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Wednesday, March 29, 2017 11:19:40 AM

158509

Page 1

N900040100

Setup Start *NS1*

Stop *NS2*

Item Name: AW169 Lower Cutter

Start Date: 3/29/2017 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 3/31/2017 **Req'd Qty:** 1.00

1

Customer:

Reference: SCHEDULED/C

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
-----------------	---------------------

IIN-D169-841

D

100

Document Control

0.00

100

DOCUMENT CONTROL

0.00

DC

Memo

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels per PPP D169-841-015 CHG002

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

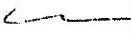
Quality Control

		Supplier Concession				PAGE 1 of 2	PLANT Leonardo Helic. - Vergiate	
Supplier NC N.	AWC 006/01		Date:	02.02.2017		AW Concession	400000061786	
P/N	6F9540V00231		Grade/Category	NC		Drawing Issue		
Part Description	PROTECTR, CCP ASSY LOWER		Batch Quantity	20,000		Defective Quantity	20,000	
AW NC	GUIDO BRUSCINO		A/C Type/Model	AW6		Contract		
Supplier	DART AEROSPACE LTD							
Defect FO01 - Wrong dimensions - * 02.02.2017 09:40:16 GUIDO BRUSCINO (40067) * see supplier document attached - B/N quantities and PO's listed in the Cause of Defect								
			Repetitiveness (same P/N - Defect Code)			NO ☒ YES ☐		
ENGINEERING Evaluation and Proposal								
Engineering Evaluations, including Specialist Inputs:			Investigation Report n.			Compliance Report n.		
* 10.02.2017 18:01:48 MARCELLO STEFANELLI (9273) * The part is acceptable with the action proposed by the supplier applied.								
Classification of Deviation from Type Design I.a.w. EASA Part 21A.91 : Minore/B								
Defect effect						Limitations		
	Before Repair		After Repair					
Safety	☐	YES	☐	YES ☐ NO	☐ YES (to specificity) ☒ NO			
Life or Duration	☐	YES	☐	YES ☐ NO				
Strenght	☐	YES	☐	YES ☐ NO				
Performances	☐	YES	☐	YES ☐ NO				
Interchangeability	☐	YES	☐	YES ☐ NO				
Reliability	☐	YES	☐	YES ☐ NO				
Maintainability	☐	YES	☐	YES ☐ NO				
Installability	☒	YES	☐	YES ☒ NO				
Testability	☐	YES	☐	YES ☐ NO				
Only Appearance	☐	YES	☐	YES ☐ NO				
No Effect	☐	YES	☐	YES ☐ NO				
Repair Proposal:					Decision			
* 10.02.2017 18:01:48 MARCELLO STEFANELLI (9273)					☐ Use rep. with spec.repair(not yet applied)			
* See attached supplier document.					☒ Use repaired with known repair(yet applied)			
					☐ Use As Is			
					☐ Use repaired for tests only(see Limitations)			
					☐ Use As Is for tests only(see Limitations)			
					☐ Scrap			
Concession Classification		☐ MAJOR ☒ MINOR		Re-submit after Repair		☐ YES ☒ NO		
Mark part with Concession		☒ NO ☐ YES		Method :				
ATE	MARCELLO STEFANELLI		CPE			Date	10.02.2017	
Checks and tests to be performed								
Repair registration with repair WO ☒ Number:								
Repair Evaluation:								
Final Decision								
S/N	Use As Is (UTI)	Use Repaired (RIL)	Scrap (SCA)	S/N	Use As Is (UTI)	Use Repaired (RIL)	Scrap (SCA)	
	☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐		☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐	
Not Serialized	Use As Is (Q.ty)		Use Repaired (Q.ty)		Scrap (Q.ty)			
Role	AW ATE	AW CPE	Inspection Clearance Repair	Quality	Customer	MoD or Authority Representative		
Signature	MARCELLO STEFANELLI							
Date	10.02.2017							

Supplier NC N.	AWC 006/01	Date	02.02.2017	AW	400000061786	Purchase Order	4801373666
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DEFECT 0001**FO01****Wrong dimensions**

attachment

 AgustaWestland A Finmeccanica Company		CONCESSION				Pag. 1 of 2	
Manuf. Doc. N.	AWC 006	Date		AW Doc. N.		Purchase Order	4800671131 4800722284 4801147764 4801186922 4801218851 4801288960 4801373666
AW P/N	6F9540V00231	S/N / Batch Number	B109195 Qty. (1) B133355 Qty. (2) B134314 Qty. (1) B134315 Qty. (1) B134842 Qty. (1) B137492 Qty. (1) B137355 Qty. (2) B137816 Qty. (1) B137818 Qty. (1) B137817 Qty. (1) B140379 Qty. (3) B140381 Qty. (2) B147002 Qty. (2) B150786 Qty. (1)	Grade	A	AW Drawing Issue	B
Description	Lower Cutter Assy			Batch Qty	20	Defective Qty	20
Manufacturer	Dart Aerospace			Model	AW169		
Defect(s) Description							
Leonardo has informed Dart that there are interference issues installing the lower cable cutter D4842-041 onto the Leonardo interface bracket.							
				Department	Inspector	Signature	Date
				Quality	16 9-89		2017/02/01
Defect(s) Cause							
The Lower Cutter body has a dimension of 10.9 +0.25/-0.00 mm. This dimension was reported as part of the approved FAI and has been met with all delivered product.							
				Department	Inspector	Signature	Date
				Quality	16 9-89		2017/02/01
Corrective Action						Complete Before	
In order to mitigate the interference issue for Leonardo, Dart is proposing to remove sufficient material to make the overall installation dimension at 22.15 mm +0.05/-0.35.							
				Department	Inspector	Signature	Date
				Quality	16 9-89		2017/02/01

For "MANUFACTURER" SUPPLIERS ONLY
ENGINEERING evaluation and proposal

Engineering evaluation

Investigation report

n.....

Compliance report

n.....

Dart's position is that this change will not impact the structural substantiation presented in Report DA169-4 for the lower cutter body since this is not a section with the lowest margin. Therefore removing 0.3 mm max from each part will not impact the structural integrity of the lower cutter assembly. The dimension on the cutter body part D4842-3/-4 will be 10.80 +0.00/-0.200.

The dimension change of the two lower cutter body parts mating, plus the sealant, anodize and primer layers will be defined as a dimension of 22.15 +0.05/-0.35 mm on the assembled lower cutterbody and will be incorporated into the D4842 drawing for inspection.

	Defect effects		Limitations
	Before any repair	After any repair	
	☐ yes	☐ yes ☐ no	☐ yes (specify) ☒ no
Safety	☐ yes	☐ yes ☐ no	
Life	☐ yes	☐ yes ☐ no	
Strength	☐ yes	☐ yes ☐ no	
Performances	☐ yes	☐ yes ☐ no	
Interchangeability	☐ yes	☐ yes ☐ no	
Reliability	☐ yes	☐ yes ☐ no	
Maintainability	☐ yes	☐ yes ☐ no	
Installability	☒ yes	☐ yes ☒ no	
Testability	☐ yes	☐ yes ☐ no	
Only aspect	☐ yes	☐ yes ☐ no	
Repair Proposal		Decision to use	
None		☐ Use repaired with specific repair	
		☐ Use repaired with known repair	
		☐ Use as is	
		☐ Use repaired for tests (see Limitations)	
		☐ Use as is for tests (see Limitations)	
		☒ Scrap	
Concession Classification	☒ Major ☐ Minor	Submit after repair	☐ yes ☐ no